CLAIMS

1. A moisture-absorbent/releasable heat-generating intermediate material to be inserted between an outer material and a lining, both having a moisture-permeable/waterproof property, a windproof property and other desired properties, so as to constitute a heat-retaining article,

characterised in comprising a heat-retaining fiber including an air layer of not less than 50 ml per 1 gram and a moisture-absorbent/releasable heat-generating fiber, wherein the heat-retaining fiber and the moisture-absorbent/releasable heat-generating fiber are prepared in a prescribed weight ratio, with at least the moisture-absorbent/releasable heat-generating fiber being dried to an inherent minimum moisture content, and wherein the moisture-absorbent/releasable heat-generating fiber is homogeneously blended and dispersed in the heat-retaining fiber, whereby the moisture-absorbent/releasable heat-generating fiber generates heat by absorbing moisture in a vapor phase or a liquid phase discharged from a human body, and an immobile air layer formed by the heat-retaining fiber retains the heat.

2. A moisture-absorbent/releasable heat-generating intermediate material as claimed in claim 1, characterised in that the heat-retaining fiber is feather and the moisture-absorbent/releasable heat-generating fiber is of polyacrylate-series, wherein the feather and the moisture-absorbent/releasable heat-generating fiber are prepared in a weight ratio ranging from 9:1 to 6:4, with at least the moisture-absorbent/releasable heat-generating fiber being dried to an inherent minimum moisture content, the weight ratio based on a weight of each of the feather and the moisture-absorbent/releasable heat-generating fiber respectively in terms of an inherent minimum moisture content, and wherein the moisture-absorbent/releasable heat-generating fiber is homogeneously dispersed in the feather, whereby heat is mainly generated by the moisture-absorbent/releasable heat-generating fiber and efficiently retained in the immobile air layer.

3. A moisture-absorbent/releasable heat-generating intermediate material to be inserted between an outer material and a lining, both having a moisture-permeable/waterproof property, a windproof property and other desired properties, so as to constitute a heat-retaining article,

characterised in comprising a heat-retaining fiber including an air layer of not less than 50 ml per 1 gram and a moisture-absorbent/releasable heat-generating fiber, wherein the heat-retaining fiber and the moisture-absorbent/releasable heat-generating fiber are prepared in a prescribed weight ratio, with at least the moisture-absorbent/releasable heat-generating fiber being humidified to an inherent maximum moisture content, and wherein the moisture-absorbent/releasable heat-generating fiber is homogeneously blended and dispersed in the heat-retaining fiber, whereby the moisture-absorbent/releasable heat-generating fiber generates heat by absorbing moisture in a vapor phase or a liquid phase discharged from a human body, and an immobile air layer formed by the heat-retaining fiber retains the heat.

4. A moisture-absorbent/releasable heat-generating intermediate material as claimed in claim 3, characterised in that the heat-retaining fiber is feather and the moisture-absorbent/releasable heat-generating fiber is of polyacrylate-series, wherein the feather and the moisture-absorbent/releasable heat-generating fiber are prepared in a weight ratio ranging from 9:1 to 6:4, with at least the mois-

ture-absorbent/releasable heat-generating fiber being humidified to an inherent maximum moisture content, the weight ratio based on a weight of each of the feather and the moisture-absorbent/releasable heat-generating fiber respectively in terms of an inherent minimum moisture content, and wherein the moisture-absorbent/releasable heat-generating fiber is homogeneously dispersed in the feather, whereby heat is mainly generated by the moisture-absorbent/releasable heat-generating fiber and efficiently retained in the immobile air layer.

5. A moisture-absorbent/releasable heat-generating intermediate material as claimed in claim 2 ~~or 4~~, characterised in that the feather and the polyacrylate-series moisture-absorbent/releasable heat-generating fiber are blended without a binder.

6. A moisture-absorbent/releasable heat-generating heat-retaining article which comprises a base material having an outer material and a lining, both having a moisture-permeable/waterproof property, a windproof property and other desired properties, and an intermediate material inserted between the outer material and the lining and having desired properties,

characterised in that the intermediate material comprises a heat-retaining fiber including an air layer

of not less than 50 ml per 1 gram and a moisture-absorbent/releasable heat-generating fiber, wherein the heat-retaining fiber and the moisture-absorbent/releasable heat-generating fiber are prepared in a prescribed weight ratio, with at least the moisture-absorbent/releasable heat-generating fiber being dried to an inherent minimum moisture content, and wherein the moisture-absorbent/releasable heat-generating fiber is homogeneously dispersed and blended in the heat-retaining fiber, whereby the moisture-absorbent/releasable heat-generating fiber generates heat by absorbing moisture in a vapor phase or a liquid phase discharged from a human body, and an immobile air layer formed by the heat-retaining fiber retains the heat.

7. A moisture-absorbent/releasable heat-generating heat-retaining article as claimed in claim 6, characterised in that the heat-retaining fiber is feather and the moisture-absorbent/releasable heat-generating fiber is of polyacrylate-series, wherein the feather and the moisture-absorbent/releasable heat-generating fiber are prepared in a weight ratio ranging from 9:1 to 6:4, with at least the moisture-absorbent/releasable heat-generating fiber being dried to an inherent minimum moisture content, the

weight ratio based on a weight of each of the feather and the moisture-absorbent/releasable heat-generating fiber respectively in terms of an inherent minimum moisture content, and wherein the moisture-absorbent/releasable heat-generating fiber is homogeneously dispersed in the feather, whereby heat is mainly generated by the moisture-absorbent/releasable heat-generating fiber and efficiently retained in the immobile air layer.

8. A moisture-absorbent/releasable heat-generating heat-retaining article, which comprises a base material having an outer material and a lining, both having a moisture-permeable/waterproof property, a windproof property and other desired properties, and an intermediate material inserted between the outer material and the lining and having desired properties,

characterised in that the intermediate material comprises a heat-retaining fiber including an air layer of not less than 50 ml per 1 gram and a moisture-absorbent/releasable heat-generating fiber, wherein the heat-retaining fiber and the moisture-absorbent/releasable heat-generating fiber are prepared in a prescribed weight ratio, with at least the moisture-absorbent/releasable heat-generating fiber being humidified to an inherent maximum moisture

content, and wherein the moisture-absorbent/releasable heat-generating fiber is homogeneously dispersed and blended in the heat-retaining fiber, whereby the moisture-absorbent/releasable heat-generating fiber generates heat by absorbing moisture in a vapor phase or a liquid phase discharged from a human body, and an immobile air layer formed by the heat-retaining fiber retains the heat.

9. A moisture-absorbent/releasable heat-generating heat-retaining article as claimed in claim 8, characterised in that the heat-retaining fiber is feather and the moisture-absorbent/releasable heat-generating fiber is of polyacrylate-series, wherein the feather and the moisture-absorbent/releasable heat-generating fiber are prepared in a weight ratio ranging from 9:1 to 6:4, with at least the moisture-absorbent/releasable heat-generating fiber being humidified to an inherent maximum moisture content, the weight ratio based on a weight of each of the feather and the moisture-absorbent/releasable heat-generating fiber respectively in terms of an inherent minimum moisture content, and wherein the moisture-absorbent/releasable heat-generating fiber is homogeneously dispersed in the feather, whereby heat

is mainly generated by the moisture-absorbent/releasable heat-generating fiber and efficiently retained in the immobile air layer.

10. A moisture-absorbent/releasable heat-generating heat-retaining article as claimed in claim 7 ~~or 9~~, characterised in that the feather and the polyacrylate-series moisture-absorbent/releasable heat-generating fiber are blended without a binder.

11. A method for producing a moisture-absorbent/releasable heat-generating intermediate material comprising a moisture-absorbent/releasable heat-generating fiber and a fiber material of another species,

characterised in preparing the moisture-absorbent/releasable heat-generating fiber and the other fiber material in a prescribed weight ratio, with at least the moisture-absorbent/releasable heat-generating fiber being dried to an inherent minimum moisture content, and blending both fibers thereafter.

12. A method for producing a moisture-absorbent/releasable heat-generating intermediate material comprising a moisture-absorbent/releasable heat-generating fiber and a fiber material of another species,

characterised in comprising:

a moisture-releasing step of drying the moisture-absorbent/releasable heat-generating fiber by heating or hot air to an inherent minimum moisture content of the fiber;

a drying step of cooling with dry air the moisture-absorbent/releasable heat-generating fiber dried to the minimum moisture content, so that the moisture-absorbent/releasable heat-generating fiber, dried to the minimum moisture content, develops difficulty in absorbing moisture;

a compounding step of measuring the moisture-absorbent/releasable heat-generating fiber dried to develop difficulty in absorbing moisture and the other fiber material measured in a similar manner and compounding both fibers on a weight ratio basis; and

a blending step of blending and dispersing the compounded fibers homogeneously.

13. A method for producing a moisture-absorbent/releasable heat-generating intermediate material comprising a moisture-absorbent/releasable heat-generating fiber and a fiber material of another species,

characterised in comprising:

a moisture-releasing step of drying each of the moisture-absorbent/releasable heat-generating fiber

and the other fiber material by heating or hot air to an inherent minimum moisture content of the each fiber;

a drying step of cooling with dry air the moisture-absorbent/releasable heat-generating fiber and the other fiber material, each dried to the minimum moisture content, so that the moisture-absorbent/releasable heat-generating fiber and the fiber material, each dried to the minimum moisture content, develop difficulty in absorbing moisture;

a compounding step of compounding, in a prescribed weight ratio, the moisture-absorbent/releasable heat-generating fiber and the other fiber material, each dried to develop difficulty in absorbing moisture, and

a blending step of blending and dispersing the compounded fibers homogeneously.

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